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ABSTRACT

In response to numerous criticisms of technocratic models of social studies curricula this paper describes a critical approach to curriculum design. Major areas of criticism related to knowledge, learning and evaluation, and teaching are explored as they relate to issues of curriculum planning and implementation and a critical approach to curriculum design is described that has been taught to pre-service teachers in social studies curriculum or methods courses during the last four years. A description of the course precedes a discussion about similarities and differences between technocratic methods and critical approaches during a five-step curriculum design process: (1) developing curriculum themes, (2) exploring resources, (3) developing learning activities, (4) evaluating pupils, and (5) evaluating the unit. For example, the critical approach to developing curriculum themes would involve the use of non-sequential integration (webbing) of knowledge organized around themes, whereas the technological approach would involve sequential, compartmentalized knowledge organized around specific objectives. Finally, two problems in implementing such alternative approaches in the schools are explored--resistence to change and a low level of teacher interest in content and curriculum design. A bibliography of nearly 70 resources, a chart illustrating the webbing effect of an integrated unit of traditional Ashanti culture, and a chart summarizing differences between technocratic and critical approaches to curriculum design conclude the document. (LH)

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SOCIAL STUDIES CURRICULUM DESIGN: A CRITICAL APPROACH

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SOCIAL STUDIES CURRICULUM DESIGN: A CRITICAL APPROACH

Many social studies educators suggest that the most important goal of social studies education is to promote the process of inquiry among pupils (e.g., Clements et al., 1966; Hennings et al., 1980; Massialas and Cox, 1966; Pagano, 1978). Rather than just spoon feeding pupils information, this conception of social studies education suggests we need to help children become thoughtful individuals through the exploration of materials and participation in activities that stimulate their curiosity and help them express their ideas about the world in which we live. Despite the popularity of this conception, the most common approach to curriculum planning and implementation, as described in professional literature (McCutcheon, 1981) and taught in university methods courses (Goodman, 1983), reflects what Bullough et al. (1984, pp. 6-7) refers to as "technocratic-mindedness." This rationality " . . . is indicated by an uncritical acceptance of the view that only the methods of a narrow conception of science produce genuine knowledge. . . . Hence there is . . . an exclusive concern with measurement, prediction, control, efficiency, and governance by experts in addressing all human problems." This rationality, which promotes the adoption of systems management procedures in the development and implementation of curriculum, has engendered a number of trends including: scientific curriculum making (Bobbitt, 1924; Charters, 1923) the behavioral objectives movement (e.g., Kibler et al., 1970; Popham and Baker, 1969), competency-based education (e.g., Burns and Klingsteadt, 1973), and computer assisted, individualized learning systems (Talmage, 1975). As a result, the inquiry goal of social studies education has been systematically contradicted through the acceptance of a technocratic approach towards curriculum design.

In developing curriculum, technocratic models promote what McCutcheon (1981) refers to as an "objectives first" approach. Mager (1962) outlines three important factors in establishing objectives. First, they must be specific and observable (e.g., to write, to solve, to identify, etc.). Terms such as "to know," "to understand," or "to appreciate," he suggests are too vague to be useful. Next, the conditions under which pupils will be expected to demonstrate achievement of the objectives need to be stated (e.g., time limits, materials and procedures to be used, etc.). Finally, objectives need to include the criterion that will be used to evaluate the success of the pupils' performance (e.g., must get 70% correct on the final exam). Once objectives have been correctly stated, instructional plans are implemented to ensure pupils reach stated objectives in the most efficient manner possible. Over the years, most technocratic models of curriculum planning have modified the psychometric methods of research found in experimental psychology into a pre-test, drillwork, post-test process of instruction. This process is often believed to be the most exact in pinpointing what objectives individual pupils fail to meet and provides them with the necessary drills to correct their deficiencies. These pre-stated objectives are not only used as the basis for instruction, but are also the standards used to measure its effectiveness. Pupil performance is the primary criteria for judging the quality of the curriculum and the nature of instruction. If pupils fail to reach stated competency levels, then objectives and/or procedures are altered to ensure pupils' performance the next time.

Although this "objectives first" approach to curriculum planning continues to dominate social studies education and education in general, during this century numerous educators have criticized this technocratic rationality and procedure as being inadequate for dealing with the moral, epistemological, and

pedagogical complexity of educating our children. Early critics included individuals such as John Dewey, William James, Boyd Bode, and William Kilpatrick. More recently, individuals such as Michael Apple, William Pinar, Maxine Greene, Herbert Kliebard, Elliot Eisner and others have made important contributions to the critical analysis of this dominant perspective. While the work of these individuals has been useful in generating new ways to think about curriculum design, for the most part, it has remained analytical. For example, Mazza (1982, p. 16) in her study of the reconceptualist movement notes, " . . . the ramifications of using (critical theories) in generating new forms of curriculum practice has not yet been given full attention by the movement." Short (1981) also raised this point at a conference on curriculum theory and practice, "I have long urged better linkage between what (progressive, critical) scholars are doing and what practitioners require; it is still one of our most unstudied problems." The question that arises is: How do we use these criticisms as a basis for alternative practice?

In addressing the above concern, this paper describes a critical approach to curriculum design that has been taught to pre-service teachers in a social studies curriculum/methods course during the last four years. The paper is divided into three sections. The first presents a summary of some major critiques of this technocratic approach. This brief review is important in order to develop the context into which this alternative approach is situated. Second, this critical approach to curriculum design is described. Following this description, the paper explores two problems in implementing this alternative in today's schools.

The Critiques

As previously mentioned, there have been numerous critiques of technocratic models of currriculum design. For the purpose of this paper, a thorough review of these critiques is not necessary; however, three areas of criticism will be explored as they relate to issues of curriculum planning and implementation.

Knowledge

A number of critics suggest that knowledge, as it is presented through technocratic curriculum models, loses much of its educational integrity. Kliebard (1971) argues that reducing knowledge to its lowest common denominator through the extreme specification of objectives results in its trivialization. Legitimate knowledge becomes a narrow band of information that at best is a small sample of what is possibly worth learning. "Educational products, even if multiplied a millionfold, could only be trivial" (Kliebard, 1971, p. 92). In this sense knowledge becomes an object or product--something certain, absolute, and consumable. Knowledge is seen as the outcome, rather than the means of the educational process. Pupils fill their empty sacks with the information given to them in class. Freire (1968) refers to this as the baking concept of education. However, as Kliebard (1971) notes, knowledge is not simply the accurate recitation of bits and pieces of information. Dewey (1922, p. 223) argued that knowledge should be a catalyst; not the end-product of learning. "Ends arise and function within action. They are not, as current theories too often imply, things lying outside activity at which the latter is directed. They are not ends or termini of action at all. They are terminals of deliberation, and so turning points in activity." From this perspective, knowledge is seen as a stimulus to thoughtful action and reflection. Further,

it suggests that "objectives," specific knowledge gained, should arise from within a given activity rather than precede it.

Another point of concern is that technocratic models of curriculum tend to stress only "public knowledge" over "personal knowledge" (Berlak and Berlak, 1983). Knowledge that has been generally accepted by the society at large and distributed through educational publications is seen as legitimate, whereas the personal knowledge, concerns, and intellectual interests of the pupils and/or their teachers play a relatively insignificant role in the educational process. More and more state legislators and agencies are determining what pupils will learn in their classrooms, and it is believed that this knowledge should be standardized over a wide cross section of the population. As Macdonald (1966, p. 41) states, when the determination of legitimate knowledge is far removed from the actual classroom experience, it " . . . violates the integrity of the person (pupil) by segmenting his (her) behavior and manipulating him (her) for an end beyond his (her) immediate experiencing in the curriculum." As will be discussed below (see pp. 9-11) many technocratic models encourage the use of textbooks, workbooks, independent study packets, and other prepackaged curriculum materials as the primary source of classroom knowledge. Critics suggest that this narrowing and standardizing of what can be learned through an overdependence on "public knowledge" greatly restricts the learning process since it fails to take into account the actual people involved in a given classroom (i.e., the pupils).

Finally, Clements et al., (1966) and others have criticized this specification of objectives because it tends to destroy the wholistic nature of knowledge as it exists in the real world. Their view is that one of the most important functions of education is to teach children how to synthesize and integrate

information from a variety of areas. Often technocratic models separate each subject into its own compartment which is then taught independently from other content. For example, skills such as reading, writing, or speaking are taught as individual subjects, rather than as a means to learn subject matter. As Dewey (1898) suggested, without an intellectual context, learning to read (or any other academic skill) becomes a mechanical, technical exercise devoid of substantive meaning. Nevertheless, in an effort to improve the efficiency by which pupils gain designated skills, technocratic models often promote this atomization of subject areas.

Learning and Evaluation

Although within various descriptions of technocratic models there is mention of "higher" levels of thinking abilities, due to the emphasis placed on quantitative evaluation of predetermined facts and/or skills; learning becomes, for the most part, a process of memorization. In this sense, the nature of instruction reflects a closed process of inquiry. Pupils read, memorize, and repeat "correct answers" found in textbooks and/or workbooks. For example, Edward Thorndike, an early proponent of technocratic/behavioralistic perspectives towards learning, stated, "Instead of trying to teach dullards (the majority of people) to think for themselves, the intellectual leaders must think for them (determine what they should learn), and drill the results, memorized into their synapses" (Franklin, 1975, p. 27).

A number of educators have suggested these models promote unhealthy attitudes towards the learning process. For example, Postman and Weingartner (1969, pp. 20-21) argue that pupils learn "hidden messages" through this technocratic process of education such as:

(1) Passive acceptance is a more desirable response to ideas than active criticism.
(2) Discovering knowledge is beyond the power of students and is, in any case, none of their business.
(3) Recall is the highest form of intellectual achievement, and the collection of unrelated "facts" is the goal of education.
(4) One's own ideas and those of one's classmates are inconsequential.
(5) There is always a single, unambiguous Right Answer to a question.

Critics suggest that this view of education fails to integrate more substantive, active modes of thought into the instructional process and thus dampens pupils' innate abilities for continued learning. Maslow (1971, pp. 78-91) suggests that an over-emphasis on certainty greatly inhibits an individual's ability to think creatively. Creative, reflective thinking implies, at least to some degree, a search into the unknown. Hence, it requires a tolerance for ambiguity and mystery. As Dewey (1933, p. 12) points out, reflective thinking involves " . . . 1) a state od doubt, hesitation, perplexity, mental difficulty, in which thinking originates, and 2) an act of searching, hunting, inquiring, to find material that will resolve the doubt, settle and dispose of the perplexity." Without this search into the "unknown," learning and hence thinking is greatly restricted. As a result, all too often, "The subtle, complex, personally selective, often confusing, and sometimes sublime task of coming to know is converted into a linear system of selecting correct responses to a series of multiple choice questions" (Bullough et al., 1984, p. 8).

Eisner (1982) furthers this argument by illustrating how technocratic curriculum models have limited the cognitive growth of children through the memorization of primarily utilitarian skills. He suggests that this approach fails to take into consideration the many different ways in which individuals learn. Not only do students learn through reading and answering questions, but through all the senses: vision, taste, touch, sound, and smell. For this

reason, he feels that the arts need to be integrated into the curriculum. It is through this "artistic" thinking that the cognitive growth of pupils will increase to the fullest. Eisner questions the definition of individualization as pupils working at their own pace in their own learning packets and the notion of educational equality as standardized curriculum. He asks if education can really be individualized if it only takes into account the different rates of learning, and not the different talents and interests found among children. He also asks if education can truly promote equality unless it takes into consideration the various cognitive abilities that children bring with them to school. Like other critics, he rejects the behavioral view of learning and instead sees learning as a process of interaction with the curriculum and communication with other individuals. A child " . . . is not simply a passive material that, like moist clay, receives the impress of the empirical world, but is an active agent that selects and organizes aspects of that world for cognition" (Eisner, 1982, p. 32). Eisner feels that without artistic experiences and thinking, children are limited in their ability to act upon and influence the world in which they live.

Finally, Eisner (1979) questions the use of quantitative evaluation of pupil performance as the criteria by which education is assessed. Instead, he an others promote the notion of aesthetic evaluation that is concerned with the intrinsic nature and quality of children's educational experiences, apart from its utilitarian function for the achievement of goals. In this sense, evaluation should attempt to discover the meaning pupils give to their educational experiences and the social and ethical implications of what pupils learn from these experiences (Greene, 1975, pp. 299-317; Huebner, 1975, pp. 217-236). As a result, evaluation of both pupils and the curriculum in action needs to be more comprehensive than currently found in technocratic models.

Teaching

In an effort to gain greater certainty over what and how pupils learn, many technocratic models of curriculum come complete with behavioral objectives, step by step procedures and materials, time schedules, and standardized tests. From this perspective, teaching is primarily viewed as a problem of management. Teachers manage their class so the pupils complete their work within a specified time period (Sarason, 1971, pp. 151-173). Connelly and Ben-Peretz (1980) referred to this type of curriculum development and implementation as "teacher proof." Proponents of technocratic models often applaud this instructional role for teachers. "The changing role of the teacher . . . to manager of instructional experiences is . . . an encouraging development" (Kibler et al., 1970, pp. 9-10).

Critics question the wisdom of the "teacher as manager" role for a number of reasons. First, as Sarason (1971, pp. 151-173) points out, these programs are developed by people who have no direct knowledge of the pupils in a given class. Since it is the teacher who ideally understands the individuals within his/her class, it seems reasonable that s/he should have a major role in deciding what would stimulate and interest the children and be able to integrate what s/he feels is important with these interests.

A number of educators suggest that this managerial role tends to "deskill" individual teachers (e.g., Apple, 1982, pp. 135-164; Gitlin, 1980). Rather than being craftspeople who develop curriculum based upon their own and/or their pupils' interests and who creatively use materials, personal talents, and innovative resources in planning and implementing learning activities; teachers are becoming educational technicians who merely execute pre-packaged curriculum. As studies by Carlson (1982) and Gitlin (1980) illustrate, the most recent development in this managerial role has come with the adoption of computer

assisted instructional programs. Under these programs, pupils answer workbook questions on computer answer sheets. These sheets are then graded by a computer. After a number of sheets are cabulated, the computer gives the teacher instructions on which drills the pupils need to work on in order to meet "un-mastered" objectives. In these programs, the primary responsibilities of the teacher are to explain directions and objectives to the pupils as outlined in the instructional program, encourage pupils to "keep up" in their "study packets," and keep track of pupils' records (i.e., paper trail).

Bullough and his colleagues (1984, pp. 20-40) illustrate how this technician's role eventually results in the alienation of creative teachers. By superimposing a curriculum upon both teachers and their pupils, technocratic models cause an estrangement between the individual and his/her own actions. Teachers have little say in either what or how children learn in their classrooms. These models tend to mirror an industrial, factory system of production. In this sense, teachers become middle level managers, pupils become production-line workers, the curriculum becomes the machines that largely determine the activities of both workers and managers, and standardized tests scores become the products (e.g., Bullough et al., 1984; Carlson, 1982). Just as managers and workers in factories are controlled through systematic application of scientific management, the range of possible teaching/learning activities are greatly restricted by these standardized curriculum programs, and as a result, teaching becomes highly repetitive. In this way, both the teacher and the pupils begin to feel apart <u>from</u> rather than a part <u>of</u> the curriculum as it is implemented in a given classroom. This social control and alienation leads eventually to what many refer to as teacher "burn-out".

In summary, by examining the areas of knowledge, instruction and evaluation, and teaching; many individuals have criticized technocratic models of curriculum design for their lack of intellectual and educational integrity, dehumanization of wo/man's spirit, and reinforcement of unhealthy educational attitudes and practice. These and other criticisms have helped many within the curriculum field to reconsider the value of these technocratic models. However, there is the danger that these critiques will be seen as merely interesting theoretical points of view without any real applications to classroom life. While these criticisms are somewhat diverse, it is possible to derive a coherent set of principles upon which alternative approaches to curriculum design can be developed. In the next section of this paper, one such approach will be described in an effort to illuminate the relationship between educational criticism and classroom practice.

Theory Into Practice

Habermas (1971, pp. 301-317) suggests that human needs can be discussed in relation to three major interests: work, communication, and emancipation. While technocratic rationality and curriculum content and design based on it have been useful in meeting certain work needs through the manipulation and control of our environment and the people within this environment, they have unfortunately blocked many of our communication needs (the ability to understand others and be understood), and our emancipation needs (the desire to grow, develop, and transcend into creative human beings). Developing a critical approach to curriculum design reflects an effort to go beyond what Habermas (1971, pp. 301-317) refers to as "instrumental rationality," and encourage the communicative and creative growth of both teachers and pupils.

As previously mentioned, this critical approach has been taught to pre-service teachers in a social studies curriculum/methods course during the last four years; most recently at Washburn University in Topeka, Kansas. Examples from pre-service teachers' curriculum development/implementation projects (see p. 14) will be cited to illustrate the principles upon which this alternative approach is based. In addition, representative excerpts from class records (kept by this author/instructor) and course evaluations (filled out by pre-service teachers at the end of the semester) will be used to further illustrate the lived experience of this approach.

The Course

"Social Studies in the Elementary/Middle School" is one of four integrated components of a "block" pre-service teachers take the semester prior to their full time student teaching experience. The other three components of the "block" include: (1) "Creative Experiences in the Classroom" which exposes pre-service teachers to the cognitive principles, resources, and methods of integrating music, art, and creative dramatics into the study of subject matter; (2) a supervised, nine week practicum experience in which pre-service teachers work in a regular elementary and/or middle school classroom for three afternoons each week, and (3) a weekly seminar meeting which helps pre-service teachers integrate knowledge gained from the other components of the "block" and reflect upon underlying issues of educational practice as related to their practicum experiences.

The course, itself, contains five sections. The first is designed to help pre-service teachers examine basic questions of education. Adapting Pinar and Grumet's (1976, pp. 51-63) four step method of "currere," pre-service teachers

re-examine their past experiences in schools (with particular attention to their social studies classes). The next step has these individuals project what social studies and education in general might or could potentially become in the future. The third step asks these people to examine the present situation in the schools and then compare these three "pictures" for similarities, differences, and common themes between them. During this step, a number of analytical frameworks (historical, psychological, political, social) are employed through class readings. Questions such as: "What is the purpose of education?", "What knowledge and intellectual abilities are worth teaching and learning in schools?", "Who should (does) control and develop the curriculum used in a given classroom?", "What is the 'hidden curriculum,' and how does it affect children?" are typically addressed during these steps. The final step asks these pre-service teachers to synthesize their own knowledge with the ideas gathered from the readings and other members of the class. This first section lays the groundwork for the rest of the course in that most pre-service teachers accept the view that alternatives to technocratic models of curriculum design are either definitely needed or are at least worthy of consideration.

The second section of the course introduces the class to the curriculum approach described later in this paper. The class goes through a number of exercises that illuminate the different steps of the approach. The last three sections expose these individuals to various resources for and methods of teaching history, sociology (social issues), and anthropology within the elementary/middle school classroom. In addition, substantive questions are explored as they relate to each of the above mentioned subject areas. For example, during the section on history, the class is asked to explore whose history have we traditionally taught in school and why. During the section on

anthropology the class examines issues of ethnocentrism and cross cultural oppression.

The central assignment of the course is for pre-service teachers to develop and implement (in their practicum site) an original social studies unit based upon their own and/or their pupils' intellectual interests. Class members are also required to integrate knowledge gained from the "Creative Experiences . . . " course into their unit of study. In this sense, the course supports the notion advocated by Carson (1984) and exemplified in the work of Ben-Peretz and her colleagues (Ben-Peretz, 1975, 1980; Carre et al., 1977) that teachers should take an active role in determining what should be taught in a given classroom, and how it should be taught. Rather than seeing teachers as merely managers of predetermined curriculum, this course presents the view that teachers should be the creative force behind the materials, resources, and activities needed to stimulate learning among a given group of children. By planning and teaching this unit of study based upon the approach described below, these pre-service teachers put into practice this dynamic principle.

The Approach

It is important to note that in discussing these technocratic and critical approaches to curriculum design, a somewhat false dichotomy is created. Certainly, curriculum design cannot be easily divided into technocratic and non-technocratic models--each with their own mutually exclusive methods and procedures. Life is not so easily divided into neat, separate compartments. In discussing these approaches, some connections will no doubt be seen. For example, some might argue that there is nothing inherent in technocratic approaches that keep teachers in the role of managers. Teachers could play an

active role in determining what and how content is taught in their classrooms and use the technocratic methods (e.g., objectives first planning) of curriculum design previously described in this paper. Nevertheless, when one examines these models in action, concern for standardization and control usually prevent the concept of "teacher as creator" of the curriculum from being strongly encouraged. While certain similarities between technocratic methods and the critical approach described below do potentially exist, when taken in its entirety, there are significant differences in both form and substance.

The process of designing curriculum represents one such difference. Technocratic approaches are primarily linear and sequential. That is, first, behavioral objectives are selected, second, materials and activities are chosen, and last, this process is evaluated, based upon pupil performance. In contrast, similar to what McCutcheon (1981) discovered in her study of curriculum planning, this course supports the notion that curriculum development involves the complex, simultaneous juggling of many different considerations: past experiences of the teacher and pupils; subject matter; goals; teacher's and pupils' personalities, interests, and talents; materials and resources available; and on-going feedback as the unit progresses. For the purpose of analysis, the steps of designing curriculum that are taught to the pre-service teachers in this course will be presented separately, and in numbering each step a locked sequence may be inferred. However, it is important to emphasize that in the actual process of creating their units these steps overlap, are worked on simultaneously, and do not follow a hard, fast order. For example, some individuals start with step two or three before working on step one. Most pre-service teachers work on all of the steps to some degree before completing any one of them.

Step I: Developing Curriculum Themes

As creators of curriculum, the first step in this process is for pre-service teachers to choose a topic of study. In preparation for this work, they are asked to reflect upon their own intellectual interests and upon what knowledge is worth exploring with the pupils in their practicum sites. They are asked not only to consider what skills and talents are necessary for adulthood, but also what topics would enrich the children's lives (Dewey, 1902).

As the title of this step suggests, curriculum is developed around broad issues, concepts, and/or themes. Knowledge is seen as a catalyst for stimulating and/or satiating a child's curiosity. Essential characteristics of knowledge are its ambiguity and constant change. Rather than emphasizing objectives (e.g., facts, skills, and "right answers,") themes contain questions, theories, and mysteries, as well as specific information. For example, instead of learning the names, dates, and places associated with European explorers, one pre-service teacher's fifth grade unit studied the topic of exploration. Pupils investigated what characteristics are found in explorers, why individuals seek new horizons, and the diverse focus for exploration (e.g., one's self, a field of knowledge, new langscapes, life, etc.). In addition to learning about European explorers, pupils discovered that many individuals have explored the unknown, including Native Americans, scholars, and themselves. While the pupils acquired specific knowledge, the emphasis was on their investigation into the above themes.

Once a topic has been chosen, pre-service teachers construct web diagrams to develop the topic's themes (Kohl, 1976, pp. 37-54; Rachelson and Copeland, 1983). For example, the first draft of a web for a unit on the traditional

Ashanti culture of West Africa illustrates the possibilities that can arise from a single idea.

insert figure #1

After a topic is fully developed, pre-service teachers often reduce the number of themes to be studied taking into consideration the knowledge base and interests of themselves and their pupils, the amount of time they have to teach the unit, and the resources available. Depending upon the individuals involved and the situation, not all units on the same topic contain the same themes. Rather than standardizing the curriculum, this course emphasizes the need for curriculum to respond to the uniqueness of the specific learning milieu in which the pre-service teachers are placed (Berman, 1984).

An important epistemological implication of developing curriculum themes through the use of webbing is that it demonstrates the interconnection and wholistic nature of knowledge. Pre-service teachers are encouraged to integrate traditional subject areas. For example, units on ecology often combined social studies and science. Pupils would explore the science of the life cycle along with the social issues of pollution, energy use, and conservation. Skills such as reading and writing were not taught as separate subjects, but were integrated into the study of content. Many pre-service teachers developed a literary/individualized reading program as part of their units (Rudman, 1976). Classroom libraries were established that reflected the themes being studied. For example, in a unit entitled, People's Changing Roles, pupils read children's literature that explored the woman's suffrage movement; portrayed men/boys as sensitive and nurturing and women/girls as dare-devilish, determined, and active; and pictured boys and girls who were close friends. By having children

use literature to study social topics, they not only learned to read, but just as importantly they read to learn.

Step II: Exploring Resources

The second step in designing curriculum involves the exploration of resources. There are two types of resources that must be investigated. The first are adult resources that increase the pre-service teacher's knowledge on a particular subject. For example, one individual researched the psychological principles of transactional analysis in preparation for a seventh grade unit entitled, Human Beings: What Makes Us Tick? For a sixth grade unit on the U.S.S.R., the pre-service teacher read some of the writings of Marx, Lenin, and Trotsky. Individuals often summarized what they discovered to their pupils as one of the unit's activities (see Step III).

Pre-service teachers also develop resources that their pupils can use to explore the themes of a given unit. Instead of viewing textbooks and other pre-packaged curriculum programs as infallible and exclusive sources of knowledge, this course emphasizes that knowledge emerges from many different spheres of life: people, art, legends, nature--the list is endless. A major focus of this course is to expose pre-service teachers to a wide variety of potential resources that can be used in the study of content. More importantly, they learn the art of discovering their own resources as they participate in their daily life activities.

One of the requirements of the course's curriculum development/implementation project is that textbook materials cannot be used as the primary source of classroom knowledge. Many units used local community resources (Weitzman, 1975). For example, a fifth grade unit entitled, The Nifty Fifties, had pupils

explore what life was like during this period of history within the U.S. to determine how "nifty" it really was. In this unit, parents and grandparents became a major source of knowledge through interviews and questionnaires. 1950's magazines, comic books (from a local dealer who also spoke to the class), music (from parents' record collections and a history of rock and roll programs played weekly on a local radio station), and T.V. coverage of the Army-McCarthy hearings were some of the other sources used in this unit. In using these resources, pre-service teachers are encouraged to present knowledge as tentative, open to questioning, and tied to its source (i.e., according to this document, picture, author, etc.); thereby, reducing its mystifying power over people.

In developing curriculum materials, the personal knowledge of pupils is also considered a legitimate resource. Too often curriculum models forget or ignore the fact that children bring a knowledge base with them to school. In contrast, most pre-service teachers involved their pupils in developing the themes for their units. They often did webbings with their pupils as part of their unit's introductory lesson in which they specifically drew upon their pupils' knowledge and/or interests. Some pre-service teachers chose topics that capitalized primarily upon what their pupils knew. For example, one individual was placed in a classroom with children from many different cultural backgrounds. In this unit, Americans: Who Are We?, pupils researched and shared their ethnic traditions, customs, and beliefs with other members of the class.

The use of various resources in teaching children about a given topic cannot be overstressed. As Cullum (1967, p. 14) states, " . . . by exposing children to the excitement and greatness of literature, art, history, geography, and science a passion for learning will develop." Education should encourage

children to explore the unknown and the mysterious, as well as take pride in what they already know. Perhaps the most important aspect of this approach to designing curriculum is for teachers to develop the ability to seek out innovative, stimulating resources from which children can learn.

Step III: Developing Learning Activities

After increasing one's knowledge base on a topic and gathering potential resources, pre-service teachers develop and organize learning activities for their units. In this effort, there are two primary goals. First, learning activities should illuminate the themes of the unit, and second, they should promote reflective inquiry. Reflective inquiry is different from either closed inquiry as previously described in this paper (see pp. 6-8) or open inquiry. Open inquiry implies no predeterminism of content or procedure, and it reflects the activity of individuals who are exploring knowledge at the "cutting edge" of their field. Reflective inquiry rests somewhere between these two extremes. Rather than basing instructional activities on specific predetermined knowledge and behavior, reflective inquiry promotes the notion of "soft determinism." The teacher, as leader of the class, has educational aims and knows the direction that the unit will take (as reflected in its themes), but not necessarily every detail that the pupils will learn from a given activity and/or resource. Eisner (1979, pp. 93-107) refers to this form of goal setting as "expressive outcomes," and it implies a search into the unknown within broadly defined thematic boundaries. For example, a number of pre-service teachers had pupils explore, through a variety of activities, the relationship between the literature in their class libraries and the themes in their units. Exactly what individuals were expected to learn from this literature was not predetermined, but emerged from the activities and books read.

Contrary to passive drilling and testing for memorization, reflective inquiry suggests that learning is dynamic and active. At various times pupils can learn more from reading and writing; at other times from discussions, art work, visual or audio stimulation, and/or working with concrete materials. In planning their units, pre-service teachers are required to diversify their activities in an effort to capitalize on different modes of learning and thinking. As previously mentioned, each pre-service teacher had to integrate some music, art, and/or creative dramatics activities into their unit. These activities were used to either study the content of their topic and/or serve as a means by which pupils could express their ideas. In many units, pupils did not necessarily participate in the same activities, read the same books, or complete the same assignments. Often pupils chose from a list of possible projects in which to get involved. More significantly, a number of pre-service teachers encouraged pupils to develop their own projects and activities. For example, in a unit on European immigration, the pupils created role plays to portray various aspects of: life in Europe, the boat trip over, and early experiences upon arrival. Two pupils who were interested in clothes and sewing developed their own project by making costumes for the plays. They researched old photographs for the styles and types of clothing worn and got help in designing from the school's home economics teacher. Connelly (1970) suggests that instruction should help pupils take responsibility for their learning. This notion is a central concept promoted in this course.

It is important to stress that just getting pupils "involved" or having "hands on" experience is not enough. Dewey (1938) makes it clear that to be educative, experiences must stimulate and challenge a child's mind. The primary purpose of developing learning activities is to encourage pupils to use their

powers of imagination, speculation, intuition, and analysis as they study subject matter. Pre-service teachers are urged to ask themselves, "What do I want pupils to be thinking about as a result of this activity?" For example, in a sixth grade unit on the Civil War the thematic focus was on being: a slave, a slave owner, and a common soldier from the North or South. The class explored why individuals fought in this war, what it was like for the people who lived through it, and what was gained and lost as its conclusion. The unit's resources and activities were oriented towards helping pupils understand that there are no simple answers to questions of war and peace, right and wrong, and/or justice and injustice. When pupils conduct research and write reports, it is not enough to simply give an opinion (Connelly, 1970). While personal knowledge is important, this knowledge should be grounded in reason and intuitive insight that is obtained from exploring other sources and ideas. As Matthews (1980) concisely illustrates in his book, Philosophy and the Young Child, even small children have the hermeneutic ability to confront substantive questions. This level of intellectual involvement is one of the primary goals on the pre-service teachers' work in the development of their units.

Finally, although objectives are not specifically predetermined and stated in behavioral terms, one should not assume that instruction becomes aimless. On the contrary, to help in the planning of their units, pre-service teachers are encouraged to place their ideas into two categories: teacher activities and pupil activities. Teacher activities are those for which the teacher assumes primary responsibility for producing, e.g., planning a field trip, leading a discussion, telling a folktale. Pupil activities often involve reading, writing, and/or speaking. However, as previously mentioned, these activities are not considered more important than art, music, or other forms of expression. Using

the notions of soft determinism and reflective inquiry, pre-service teachers organize their units' activities into three sections:

(1) The Introduction - These activities introduce pupils to and stimulate interest in the topic of study. Introductory activities also solicit pupils' previous knowledge about a given topic.

(2) The Body - These activities are organized into a series of lessons (or learning centers) that illuminate the themes of a given topic and stimulate the children's thinking.

(3) The Conclusion - These activities summarize the main points of the unit. Concluding activities also give the pupils a chance to appreciate and share what they have learned and produced.

In developing units of study, this approach to curriculum design requires careful research, thoughtful planning, and a willingness to actively guide pupils in their search for knowledge and understanding.

Step IV: Evaluation of Pupils

Perhaps the most difficult aspect of using this approach to curriculum design is that pre-service teachers must find alternative methods of evaluating pupil work. Rather than relying heavily upon quantitative measures such as workbooks, worksheets, and/or tests of memorization, learning activities such as informal reading and discussions, art work, or projects require more comprehensive evaluation procedures. While an occasional test or worksheet is appropriate, quantitative proof of learning is usually not emphasized. However, one important role of the teacher is to discover what pupils are learning as they participate in a unit's activities. Through observation of and dialogue with their pupils (in this manner pupils are involved in the evaluation process) and careful examination of their pupils' work, pre-service teachers made substantive assessments regarding the quality of their children's efforts. There are numerous methods for subjective, interactive evaluation (e.g., Almy and Cunningham, 1959; Hull, 1984). Many pre-service teachers kept a file folder on

each of their pupils. After an activity or at the end of the day, the pre-service teacher would write his/her assessments of the children's work. Entries often addressed work completed by the pupils or at times just an observation of an individual child as s/he interacted within a given activity. For example, one entry stated,

> Noticed Bill was looking at the bulletin board (on the history of farming in the state) this afternoon. This is the first time he has shown some independent interest in schoolwork since I started the practicum. I'll have to remember to find out his reaction tomorrow and try to get a sense of what he got out of it (excerpt from Joan's notebook).

If nothing was added to a given child's folder for a few days, the pre-service teacher would give careful attention to that child's work the next day; thus maintaining individual attention. Although assessments aren't quantitative, by keeping systematic, written records pupil evaluation is given careful attention and is comprehensive.

Step V: Evaluation of the Unit

The final step in designing curriculum involves the evaluation of the unit. Rather than focusing solely on whether pupils meet prespecified performance objectives, the evaluation of a unit's content and activities should include its ability to reflect sound educational and ethical principles. In evaluating their units, pre-service teachers are encouraged to ask themselves: What conception(s) of knowledge is presented to the children? What type(s) of learning are emphasized through the unit's activities? How do the pupils respond to the unit? How do you, the teacher, respond to the unit? Pre-service teachers are asked to consider these questions in light of their own common sense, beliefs, and experiences. Rather than waiting until the end of a unit to evaluate it, pre-service teachers evaluate their units on a weekly basis

during their seminar meetings. In this way, they recognize the value of on-going feedback and reflection.

In addition to carefully evaluating the educational significance of their units, pre-service teachers are also encouraged to consider the social and ethical implications of what they teach. Many suggest that there is no such thing as "value free" or neutral education. Pre-service teachers are asked to critically analyze the social values, beliefs, and attitude embedded in their units.

This critical awareness was manifested in a number of ways. As some educators have illustrated (e.g., Hull, 1978; Taxel, 1978; Wolf-Wasserman and Hutchinson, 1978), children's literature, textbooks, and other resources may reinforce unhealthy social perceptions and attitudes among children if not critically examined (e.g., sexism, racism, classism, etc.). Through class discussions and individual conferences, most pre-service teachers become sensitive to these issues and raised them with their pupils when using materials that reflected prejudicial perspectives. Units on non-industrial cultures or minority cultures within the United States often raised issues of cross cultural conflict and/or ethnocentrism with their pupils. Pre-service teachers who developed historical units made efforts to emphasize the role that all people play in the creation of history, rather than overemphasizing the role of famous white men. A number of individuals developed units on contemporary social, political issues such as ecology, human rights, and nuclear arms. Others integrated social issues into more traditional units. For example, a third grade unit on "careers" included themes such as: the role of women in the workforce, the notion of class conflict, and the problems individuals face when unemployed. These units exposed children to many viewpoints of a given issues, and

encouraged their participation in society. As Apple (1975, pp. 95-119) implies, pre-service teachers are encouraged to view conflict as a central concern in the study of social life. The criteria for evaluating units needs to address both pupils' work, and the educational and ethical principles and implications of curriculum content and activities. To ignore these latter criteria and pretend that education can be neutral, only contributes to a stagnant society.

Summary

As previously mentioned, it is difficult to clearly divide the methods and procedures of technocratic and critical approaches to curriculum design into two mutually exclusive categories. On the surface, the five steps of: (1) developing curriculum themes, (2) exploring resources, (3) developing learning activities, (4) evaluating pupils' work, and (5) evaluating the unit may have some similarities to more technocratic models. However, as the chart below illustrates, on a deeper level, there are essential differences.

insert table #1

The critical principles that are manifested through these steps alter the quality and substance of this approach as it is implemented within classrooms.

It is important to emphasize that the art of designing curriculum from a critical perspective involves more than just following a certain procedure. In its truest sense, it reflects a way of seeing the world of knowledge, children, and the educational process. The individuals who are most attracted to this critical approach are intellectually alive and socially aware human beings. They enjoy the challenge of taking the knowledge found in the world around us and transforming that knowledge into a stimulating educational experience for

children. These individuals thrive on autonomy, and they see the ability to develop unique and original curriculum as essentially a creative art.

Problems of Implementation

Critiques of technocratic models of curriculum design have been helpful in laying the groundwork for the development of alternative approaches. In teaching pre-service teachers, there are several problems that are likely to affect the implementation of this critical approach in our classrooms. Two of these constraints will be briefly considered along with suggestions for minimizing their negative impact.

First, as mentioned at the beginning of this paper, a technocratic approach to curriculum design has dominated the schools for most of this century. In light of the present accountability, testing, and competency based movements, this trend has continued to gain momentum (Resnick, 1980). In an effort to increase nationally standardized test scores, school systems often insist that teachers use prepackaged curriculum programs. There seems to be little administrative support for teachers to develop curriculum based upon their's and/or their pupils' interest (Sarason et al., 1966). Even when this support does exist, the bureaucratic nature of schools makes it difficult for autonomous thinking teachers (e.g., Gracey, 1972).

While general educational and social support for technocratic curriculum design makes it difficult to implement genuine alternatives, it is not impossible. There are teachers who reject this technocratic rationale and who, to some degree, resist efforts to limit their autonomy (e.g., Wolcott, 1977; McCutcheon, 1981; Connelly, 1972). However, the constraints mentioned above do add another dimension to teaching pre-service teachers the process of

designing curriculum. Since new ideas often have to be justified, it would be difficult for teachers to propose alternatives to the dominant perspective without a sound understanding of theoretical principles. As part of their course work, pre-service teachers write term papers in which they create an approach to social studies curriculum design. First, they title their approach which reflects its general focus. Some recent titles have been: "An Active Learning Approach," "A Multi-Perceptual Approach," and "An Ethnological Approach." More important than any given title, in this paper pre-service teachers describe the essential characteristics and educational principles of this approach, develop a social and/or educational rationale for using this approach, and finally, describe their unit an an example of this approach. Throughout the paper, pre-service teachers use readings from this and other courses to support their ideas. During the last few days of the course, pre-service teachers present their approach and unit to the rest of the class, thus helping them learn how to articulate their ideas. As the following excerpt illustrates, this assignment helps these individuals see that they can contribute fresh ideas to the field of education.

> I have to admit that at times I was a bit overwhelmed and lost due to the amount of material that was covered in this class. But the paper and presentation really pulled things together for me. Developing my approach helped me begin to develop a philosophy of teaching and to back my ideas up with reasons. The paper was difficult but worthwhile in that I now feel I can contribute some of my own ideas to the field of education especially concerning the relationship between theory and practice (excerpt from pre-service teacher's course evaluation).

Without being able to articulate the connection between educational criticism and practice, this approach would simply be another mechanical exercise without much chance for implementation in classrooms.

In addition to becoming theoretically knowledgeable, pre-service teachers are asked to consider the importance of being a change agent in the schools. As Kohl (1976, pp. 119-163) discusses, during seminar meetings pre-service teachers are exposed to issues concerning the "politics of teaching." They consider the problems of initiating substantive change within a given set of contraints in a way that doesn't needlessly alienate administrators, other staff, and/or parents. Planning for short-term and long-term changes, developing a support system among other progressive individuals within the school and community, writing proposals for curriculum change, and presenting ideas for curriculum at local and state conferences are some of the strategies pre-service teachers take into consideration.

Most individuals got to practice some of these strategies in their field placements. While some were given the freedom to teach anything they wanted, most had to negotiate with their cooperating teacher in order to teach their units. With support from the university supervisor, pre-service teachers overcame their initial fears of the school's authority and negotiated some freedom within constraints.

> The most important thing I learned from this (practicum) experience is to assert myself and ask questions to see if I could try things. I'm the kind of person who has real difficulty in confronting authority figures, but with your (the supervisor's) help, I've overcome a lot of my fears (excerpt from pre-service teacher's field experience evaluation).

Some pre-service teachers gained time. While they taught the regular curriculum, they were given a certain amount of time each day to teach their units. Others followed the school's curriculum guide, but significantly altered it. For example, many had to teach a unit on state history, but beyond this directive they negotiated the freedom to develop their own content, materials, and

activities. In this manner, pre-service teachers got practical experience, to some degree, at being change agents in their practicum sites. Additionally, a few of the students from last semester decided to present their approach and unit at the annual Kansas Council for the Social Studies in an effort to more fully participate in our field.

The second problem concerns the pre-service teachers' relationship to content. As Buchman (1982) and others point out, these individuals often come into the teaching profession with little concern for subject content or a desire to develop their own curriculum (e.g., Ginsburg and Newman, 1983; Goodman, 1982; Tabachnick et al., 1979-80). Most pre-service teachers, it seems, view teaching primarily as an interpersonal affair. They want to teach because they like children (Lorite, 1975); not because they are interested in knowledge or the dynamics of learning.

This lack of interest in content and curriculum design created a number of concerns that needed to be addressed. During class discussions, many pre-service teachers admitted feeling ignorant. They felt that despite their class standing as juniors or seniors in college, they didn't know anything worth teaching children. Since many felt that teachers should always be able to provide the "right answer," in previous practicum experiences they had become dependent upon textbook materials and instruction manuals. Most pre-service teachers did not have much trust in their own intellectual abilities.

> Today we talked about why so many students (pre-service teachers) still feel "dumb" in spite of all their education. Most students felt it was because they were never given credit for what <u>they</u> knew in school, but were always trying to find the "right answer" as defined by the teacher and/or textbook. In addition, many said that most classes right up through college just asked them to recite information that others said they should know instead of building upon the knoweldge they already had. As a result, they said their educational experiences had taught them not to put much faith in

> their own powers to learn and know what's important. As one student said, "It always seems that, in school, it's what you don't know that's seen as valuable; not what you do know." One student said this need for always having the right answer goes outside of the school. She pointed out, "Look what happened to Carter when he said he didn't always have the answer. People thought he was weak and ineffective" (excerpt from class notes - 8/26/83).

By challenging these educational experiences and self-perceptions, pre-service teachers gained confidence in their knowledge base. More importantly, as they worked on their units, they developed self-assurance in their ability to research new subject areas. At first, most pre-service teachers knew little about the topic for their unit, and considerable research was often necessary in the development of the unit's themes. At the end of the course, many evaluations expressed satisfaction not only from working with children, but also from learning about their topics. As the excerpt below exemplifies, most pre-service teachers seemed to have gained a new appreciation for the world of knowledge.

> The most exciting concept I got from this course was that my students and I have the power to "create knowledge." I no longer feel that I, as a teacher, have to know everything before I teach it to kids. I now realize that we can learn about stuff together. I feel that I could teach just about any (social studies) topic to kids because now I know how to research and find resources for us to learn from (excerpt from pre-service teacher's course evaluation).

This increased confidence and appreciation did not come easily. In addition to class discussions, it was necessary to work with each individual at least once (and up to four times) to help them get started, share ideas and resources, and provide support and encouragement.

It is important to note that some pre-service teachers found this critical approach to designing curriculum very difficult. Developing units in this course is much like writing a documentary or an article on a given topic. That

is, it requires interest in the subject matter, motivation and skill to research relevant information, energy to discover innovative sources, and the ability to organize the findings of this work into a challenging form that children can understand and enjoy. Each semester there are a couple of individuals who are not able to adequately complete the unit assignment due to a lack of interest, motivation, and/or intellectual capability. Perhaps this approach to curriculum design is not meant for the marginal pre- or in-service teacher.

Conclusion

In a recent insightful article, Schubert (1982) points out that curriculum study has been mostly concerned with how to make curriculum fit into the programmatic demands of schools. The main focus of curriculum design has been on the efficient, orderly, and systematic delivery of subject matter to institutionalized groups of children. He applauds the work of many critics for expanding the field of curriculum to include the social, psychological, and phenomenological implications of knowledge, learning, and teaching into this inquiry. Most importantly, these criticisms callenge those in the curriculum field to base their ideas on what is good for our children's and our culture's physical, emotional, intellectual, and spiritual health; and not just on what supports the bureaucratic functions of schools. By having pre-service teachers reflect upon these and other substantive issues of education, along with helping them develop and implement a unit of study based upon their own intellectual interests, this course is directed towards enhancing their awareness of the vast curriculum potential that can exist within educational settings (Ben-Peretz, 1975).

Perhaps it is unrealistic to expect substantive alternatives to traditional curriculum design on a large scale until our society as a whole begins to question the value of institutions and programs based upon a technocratic rationale. Clearly, more than the good intentions of a few individuals and the existence of viable alternatives are needed to change school practices (Stake and Easley, 1978). What happens in this course hardly constitutes a panacea for the ills found within teacher preparation or schools in general. The relationship between school practice and the socio-cultural context within which it exists is complex, and no one strategy can be expected to fundamentally alter the present system. However, in spite of the considerable problems in implementing this or other critical approaches to curriculum design, on a small scale, the work of these pre-service teachers over the last few years has made a convincing argument for the possibility of real, concrete alternatives. In order to continue this important work, more reports are needed that describe these alternatives in either professional preparation programs or the public schools.

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Figure #1
Initial Web of Ashanti Culture

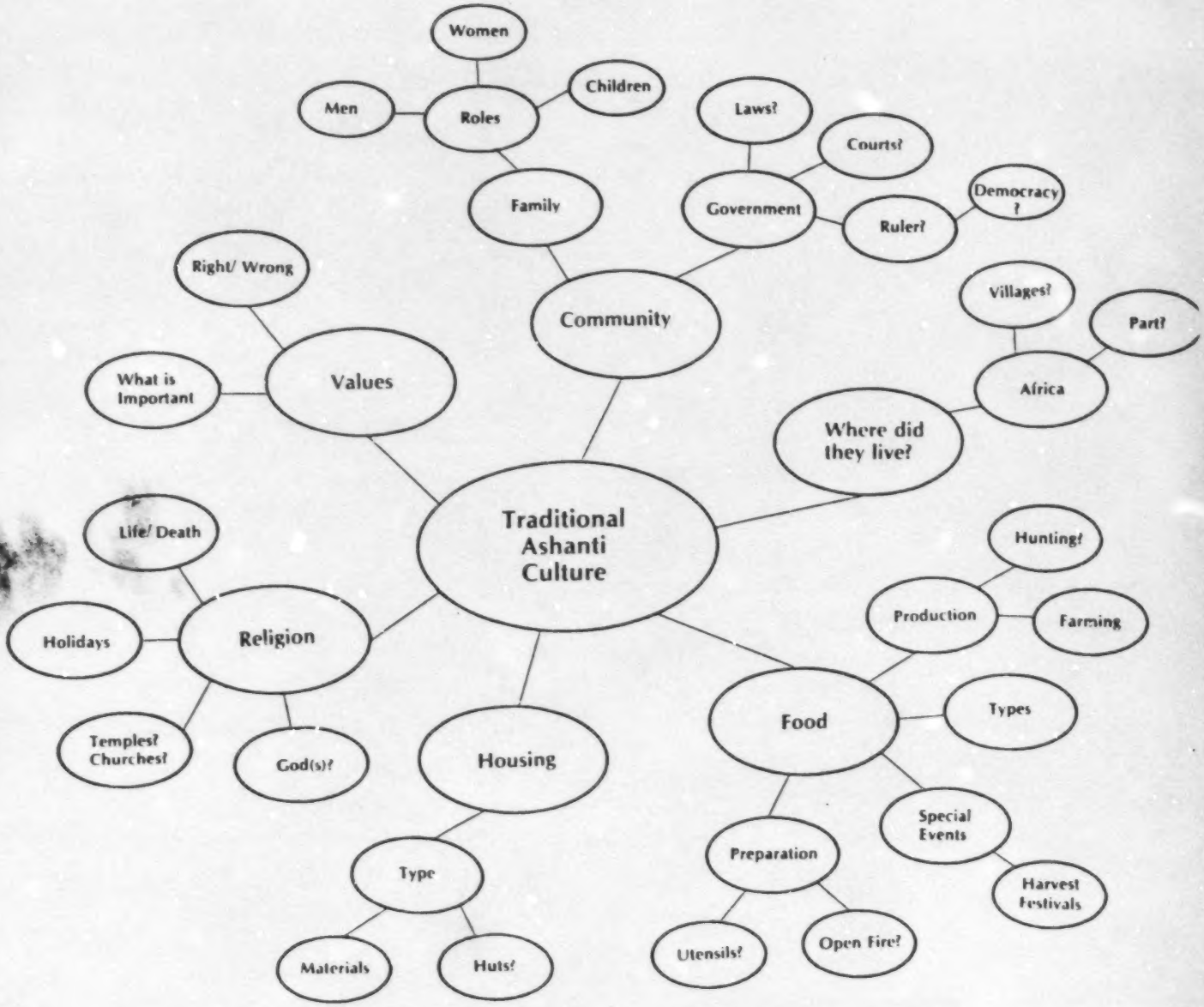

Table #1

Summary of Technocratic and Critical Approaches to Curriculum Design

Characteristic	Technocratic Perspectives/Approach	Critical Perspectives/Approach
Developmental Process	Linear, Sequential	Non-sequential, simultaneous
Knowledge	Organized into specific objectives	Organized around themes
	Compartmentalized	Integrated
	Viewed as consumable object, end-product of educational process	Viewed as catalyst for continued reflection and/or action
	Textbooks, etc. seen as primary source for...	Emphasizes diverse sources of (including personal knowledge)...
	Seen as absolute	Seen as problematic, open to questioning, tied to source
	Pre-determined	Soft-determined
Learning	Primarily stresses memorization	Emphasizes diverse modes of thinking/learning
	Passive, repetitious	Active, variant
Learning Activities	Chosen for efficiency in reaching objectives	Chosen for ability to illuminate themes and stimulate interest/ thoughtfulness among pupils
	Standardized	Unique to each situation
	Mirrors/reproduces industrial work	Promotes communicative, emancipatory interests
Evaluation	Quantitative evaluation of pupils	Subjective, comprehensive evaluation of pupils
	Unit evaluated by pupil performance	Unit evaluated from broad basis including: pupil work, ed./ social principles
	Occurs primarily at end of unit	On-going throughout unit
Teaching	Managerial, technician role	Creator, craftsperson role